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Francisco Javier Romero Amaya

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EXAMINER

SCHLENTZ, NATHAN W

ART UNIT

PAPER NUMBER

1616

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |  |   |  |
|------------------------------|--|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/537,192   | <b>Applicant(s)</b><br>ROMERO AMAYA, FRANCISCO JAVIER |  |
|                              | <b>Examiner</b><br>Nathan W. Schlientz | <b>Art Unit</b><br>1616                               |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8,10,11,14,15 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,10,11,14,15 and 20-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 April 2009 has been entered.

### ***Status of Claims***

Claims 1, 3-5, 7, 8, 10, 11, 14, 15 and 20-23 are pending and thus examined herein on the merits for patentability. No claim is allowed at this time.

### ***Response to Arguments***

Applicant's Remarks filed 10 April 2009 have been fully considered and are discussed herein below.

### ***Withdrawn Rejections***

Rejections and/or objections not reiterated from the previous Office Action are hereby withdrawn. The following rejections and/or objections are either reiterated or

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newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities: the 3<sup>rd</sup> line needs a preposition, such as by or with, between the words “product” and “spraying”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1,148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
1. Claims 1, 10, 11, 14 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al. (US 5,747,519) in view of Creffield et al. (The International Research Group on Wood Preservation, 12-17 May 2002).

**Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

Kodama et al. teach a composition comprising a compound of formula (I) and a pyrethroid compound, such as bifenthrin, wherein the composition may be applied to (i.e., superficial treatment) or adsorbed in (i.e., impregnating) building materials (col. 1, ln. 32-42; col. 2, ln. 6-10 and 38-40; col. 3, ln. 21-24, 27-45; and claim 11). Kodama et al. further teach that the composition may be formulated into forms suited to the object of use, such as an oil solution, emulsion, water solution, powder, granules, wettable powder, aerosol, etc. (col. 3, ln. 37-45); as well as the use of auxiliary agents and liquid vehicles, such as organic solvents (col. 3, l. 46 to col. 4, l. 9). Kodama et al. also teach examples of compositions comprising bifenthrin for the treatment of wood, such as timber products like plywood, particle boards and half boards (col. 4, ln. 13-20; Embodiments 1 and 2 in Examples; and Table 1).

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Kodama et al. do not explicitly teach the rate at which bifenthrin is applied for wood treatment. However, Creffield et al. teach treating *P. radiata* sapwood specimens to a nominal retention of 2.5, 5, 10, 15, 20, 30 and 50 g/m<sup>3</sup> of bifenthrin, wherein protection of the *P. radiata* against attack from *Mastotermes darwiniensis* and *Coptotermes acinaciformis* was determined (page 3, Laboratory bioassay, Field Trial; and Tables 1 and 2). Creffield et al. teach that the lower and upper threshold limits obtained for *M. darwiniensis* in both the laboratory and field were 10 and 20 g/m<sup>3</sup>; and

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the threshold limit for *C. acinaciformis* must be less than 2.5 g/m<sup>3</sup> in the laboratory and less than 5 g/m<sup>3</sup> in the field (Table 3; page 7, Conclusions).

### **Finding of *prima facie* obviousness**

#### **Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to apply the bifenthrin containing composition to wood products, according to Kodama et al., wherein the bifenthrin is applied at a retention rate of 2.5-20 g/m<sup>3</sup> in order to protect the wood product against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*, as reasonably taught by Creffield et al.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### **Response to Arguments**

Applicants argue on page 7 that Kodama et al. do not teach or suggest the claimed retention rate of between about 4 and 23 g of the bifenthrin per cubic meter or the wood product. However, as discussed above, Creffield et al. teach that 2.5-20 g/m<sup>3</sup> bifenthrin is required to protect timber against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*. Thus, it would have been obvious to apply 2.5- 20 grams bifenthrin per cubic meter in the timber products of Kodama et al.

Applicants further argue that Kodama et al. is directed to termite control methods for soil treatment by spraying the soil or under the floor. However, the examiner respectfully argues that Kodama et al. teach that the composition may be applied to (i.e., superficial treatment) or adsorbed in (i.e., impregnating) building materials (col. 3, ln. 33-34), such as plywood, furniture, particle boards, half boards, etc. (col. 4, ln. 13-19).

2. Claims 1, 10, 11, 14 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wimmer et al. (CA 2 321 353) in view of Creffield et al. (The International Research Group on Wood Preservation, 12-17 May 2002).

**Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

Wimmer et al. teach an aqueous wood preservative formulation comprising a cyclodextrin, tebuconazole, propiconazole and **bifenthrin** (page 4, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs; page 14, Example 7; page 15, Example 8; and claims 10 and 11). Wimmer et al. further teach a method of protecting wood and timber materials by treating said wood or timber with the preservative composition comprising bifenthrin (claim 18). Also, Wimmer et al. teach that the wood preservative may also comprise colorants (page 6, line 21; and claim 15), and may be applied to wood by known means, such as painting on, spraying or impregnating methods such as dipping, immersing, and the pressure, vacuum and double-vacuum methods (page 9, 3<sup>rd</sup> paragraph).

**Ascertainment of the difference between the prior art and the claims  
(MPEP 2141.02)**

Wimmer et al. do not explicitly teach the rate at which bifenthrin is applied for wood treatment. However, Creffield et al. teach treating *P. radiata* sapwood specimens to a nominal retention of 2.5, 5, 10, 15, 20, 30 and 50 g/m<sup>3</sup> of bifenthrin, wherein protection of the *P. radiata* against attack from *Mastotermes darwiniensis* and *Coptotermes acinaciformis* was determined (page 3, Laboratory bioassay, Field Trial; and Tables 1 and 2). Creffield et al. teach that the lower and upper threshold limits obtained for *M. darwiniensis* in both the laboratory and field were 10 and 20 g/m<sup>3</sup>; and the threshold limit for *C. acinaciformis* must be less than 2.5 g/m<sup>3</sup> in the laboratory and less than 5 g/m<sup>3</sup> in the field (Table 3; page 7, Conclusions).

**Finding of *prima facie* obviousness  
Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to apply the aqueous composition comprising bifenthrin to wood products according to Wimmer et al. wherein the bifenthrin is applied at a retention rate of 2.5-20 g/m<sup>3</sup> in order to protect the wood product against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*, as reasonably taught by Creffield et al.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to



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one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicants argue on page 8 that Wimmer et al. do not teach or suggest the claimed retention rate of between about 4 and 23 g of the bifenthrin per cubic meter or the wood product. However, as discussed above, Creffield et al. teach that 2.5-20 g/m<sup>3</sup> bifenthrin is required to protect timber against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*. Thus, it would have been obvious to apply 2.5- 20 grams bifenthrin per cubic meter in the timber products of Wimmer et al.

3. Claims 1, 10, 11, 14 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahide et al. (JP 11-207706; machine-generated translation referred to herein and attached herein), in view of Wimmer et al. (CA 2 321 353) and Creffield et al. (The International Research Group on Wood Preservation, 12-17 May 2002).

### **Determination of the scope and content of the prior art**

#### **(MPEP 2141.01)**

Takahide et al. teach an antiseptic insecticide for wood comprising a wood antiseptic and insecticide, such as bifenthrin, diluted with water (Abstract, Work Example 3 [0046]).

### **Ascertainment of the difference between the prior art and the claims**

#### **(MPEP 2141.02)**

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Takahide et al. do not explicitly teach the aqueous bifenthrin composition being applied to the wood by spraying at a retention rate between about 4 and 23 g of bifenthrin per cubic meter of wood, as instantly claimed. However, Wimmer et al. teach that known methods for applying bifenthrin to wood products include painting on, spraying or impregnating methods such as dipping, immersing, and the pressure, vacuum and double-vacuum methods (page 9, 3rd paragraph). Also, Creffield et al. teach treating *P. radiata* sapwood specimens to a nominal retention of 2.5, 5, 10, 15, 20, 30 and 50 g/m<sup>3</sup> of bifenthrin, wherein protection of the *P. radiata* against attack from *Mastotermes darwiniensis* and *Coptotermes acinaciformis* was determined (page 3, Laboratory bioassay, Field Trial; and Tables 1 and 2). Creffield et al. teach that the lower and upper threshold limits obtained for *M. darwiniensis* in both the laboratory and field were 10 and 20 g/m<sup>3</sup>; and the threshold limit for *C. acinaciformis* must be less than 2.5 g/m<sup>3</sup> in the laboratory and less than 5 g/m<sup>3</sup> in the field (Table 3; page 7, Conclusions).

### **Finding of *prima facie* obviousness**

#### **Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to apply the aqueous bifenthrin compositions according to Takahide et al. to wood by spraying at a retention rate of 2.5-20 g/m<sup>3</sup> in order to protect the wood product (i.e. *P. radiata*) against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*, as reasonably taught by Creffield et al.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicants argue on page 8 that Takahide et al. do not teach or suggest the claimed retention rate of between about 4 and 23 g of the bifenthrin per cubic meter or the wood product. However, as discussed above, Creffield et al. teach that 2.5-20 g/m<sup>3</sup> bifenthrin is required to protect timber against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*. Thus, it would have been obvious to apply 2.5- 20 grams bifenthrin per cubic meter in the timber products of Takahide et al.

4. Claims 1, 7, 10, 11, 14, 15, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shires et al. (The International Research Group on Wood Preservation, 19-24 May 1996) in view of Wimmer et al. (CA 2 321 353).

### **Determination of the scope and content of the prior art**

#### **(MPEP 2141.01)**

Shires et al. teach bifenthrin as a suitable wood preservative (Title). Shires et al. teach treating Scots pine sapwood (*Pinus sylvestris* L.) and beech wood (*Fagus sylvatica* L.) with a micro emulsion (ME) concentrate containing bifenthrin in a 4% water solution by dipping which gives a loading of 6.4 to 9.7 g/m<sup>3</sup> bifenthrin at a depth of 3 mm

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(Section 3.1, "Dipping"). Shires et al. further teach spraying wood with a light organic solvent composition comprising bifenthrin as well as double vacuuming into wood a water diluted composition comprising bifenthrin (Section 2.1, 2.2, and 3.1).

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Shires et al. do not explicitly teach the water diluted bifenthrin composition being applied to the wood by spraying at a retention rate between about 4 and 23 g of bifenthrin per cubic meter of wood, as instantly claimed. However, they teach spraying, dipping and double vacuuming as suitable methods for applying bifenthrin compositions to wood. Also, Wimmer et al. teach that known methods for applying bifenthrin to wood products include painting on, spraying or impregnating methods such as dipping, immersing, and the pressure, vacuum and double-vacuum methods (page 9, 3rd paragraph).

**Finding of *prima facie* obviousness**

**Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to apply the water diluted bifenthrin composition according to Shires et al. by spraying at a retention rate of between 4 and 23 g per cubic meter because Wimmer et al. teach applying aqueous compositions of bifenthrin by known methods, such as spraying, and Shires et al. teach aqueous compositions of bifenthrin at a retention rate of 6.4 to 9.7 g/m<sup>3</sup>.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicants argue on page 9 that Shires et al. do teach bifenthrin as a wood preservative and a superficial treatment of pine and beech wood with a light organic solvent product. However, the examiner respectfully argues that Shires et al. teach a dipping treatment with water diluted micro-emulsion comprising 0.012% bifenthrin, which resulted in a loading of 6.4 to 9.7 g/m<sup>3</sup> (Section 3.1, "Dipping"). Also, it was well-known at the time of the instant invention that methods of applying a pesticide to wood other than dipping includes spraying, as taught by both Shires et al. and Wimmer et al.

5. Claims 1, 10, 11, 14 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaetsch et al. (EP 1 018 413) in view of Wimmer et al. (CA 2 321 353) and Creffield et al. (The International Research Group on Wood Preservation, 12-17 May 2002).

### **Determination of the scope and content of the prior art**

#### **(MPEP 2141.01)**

Jaetsch et al. teach insecticidal treatment of the backside of plywood with bifenthrin, nonylphenol, formalinchatcher, water, and other solvents (page 7).

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Therefore, Jaetsch et al. teach a method of treating timber with bifenthrin in water as well as the timber product comprising bifenthrin.

### **Ascertainment of the difference between the prior art and the claims**

#### **(MPEP 2141.02)**

Jaetsch et al. do not explicitly teach the aqueous bifenthrin composition being applied to the wood by spraying at a retention rate between about 4 and 23 g of bifenthrin per cubic meter of wood, as instantly claimed. However, Wimmer et al. teach that known methods for applying bifenthrin to wood products include painting on, spraying or impregnating methods such as dipping, immersing, and the pressure, vacuum and double-vacuum methods (page 9, 3rd paragraph). Also, Creffield et al. teach treating *P. radiata* sapwood specimens to a nominal retention of 2.5, 5, 10, 15, 20, 30 and 50 g/m<sup>3</sup> of bifenthrin, wherein protection of the *P. radiata* against attack from *Mastotermes darwiniensis* and *Coptotermes acinaciformis* was determined (page 3, Laboratory bioassay, Field Trial; and Tables 1 and 2). Creffield et al. teach that the lower and upper threshold limits obtained for *M. darwiniensis* in both the laboratory and field were 10 and 20 g/m<sup>3</sup>; and the threshold limit for *C. acinaciformis* must be less than 2.5 g/m<sup>3</sup> in the laboratory and less than 5 g/m<sup>3</sup> in the field (Table 3; page 7, Conclusions).

### **Finding of *prima facie* obviousness**

#### **Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to apply the aqueous composition comprising bifenthrin to

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the backside of plywood according to Jaetsch et al. wherein the bifenthrin is applied by spraying at a rate of 2.5-20 g/m<sup>3</sup>, as reasonably taught by Wimmer et al. and Creffield et al.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicants argue on page 10 that there is no teaching in Jaetsch et al. that the chemical formulations of the glue containing the organic phenol compounds are dissolved in water. However, the examiner respectfully directs attention to Example of execution 5 wherein the composition comprises 50 parts in weight water and 50 parts in weight of formalinchatcher and 1.82 parts in weight chemical formulation (i.e. approximately 49% by weight water). Thus, the bifenthrin is necessarily diluted in water.

6. Claims 1, 10, 11, 14 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu (US 5,536,305) in view of Creffield et al. (The International Research Group on Wood Preservation, 12-17 May 2002).

### **Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

Yu teaches applying bifenthrin to freshly sawn timber via pressure treatment, vacuum treatment, dipping, brushing, spraying, or soaking (col. 2, ln. 4-7 and 13; col. 4, ln. 26-34; and claims 1-5). Yu further teaches that surfactants, adjuvants including antifoam agents, antifreeze agents, wetting agents, thickeners, and the like can be added to composition, as well as organic solvents (col. 2, ln. 17-18, 34-35, and 52-59; and claims 2 and 3). Yu also teaches that the composition is suitable for dilution with water to form a microemulsion or an emulsion, wherein the microemulsion or emulsion is applied to the wood (i.e., lumber, timber, posts, wood coverings, wicker, millwork, joinery, plywood, fiberboard, chipboard, waferboard, particleboard, etc) (col. 1, ln. 13-17; col. 2, ln. 36-39; Table 1; and claim 5).

#### **Ascertainment of the difference between the prior art and the claims**

##### **(MPEP 2141.02)**

Yu does not explicitly teach the rate at which bifenthrin is applied for wood treatment. However, Creffield et al. teach treating *P. radiata* sapwood specimens to a nominal retention of 2.5, 5, 10, 15, 20, 30 and 50 g/m<sup>3</sup> of bifenthrin, wherein protection of the *P. radiata* against attack from *Mastotermes darwiniensis* and *Coptotermes acinaciformis* was determined (page 3, Laboratory bioassay, Field Trial; and Tables 1 and 2). Creffield et al. teach that the lower and upper threshold limits obtained for *M. darwiniensis* in both the laboratory and field were 10 and 20 g/m<sup>3</sup>; and the threshold limit for *C. acinaciformis* must be less than 2.5 g/m<sup>3</sup> in the laboratory and less than 5 g/m<sup>3</sup> in the field (Table 3; page 7, Conclusions).

#### **Finding of *prima facie* obviousness**



### **Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time of the invention to apply the bifenthrin containing composition to wood products according to Yu wherein the bifenthrin is applied at a retention rate of 2.5-20 g/m<sup>3</sup> in order to protect the wood product against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*, as reasonably taught by Creffield et al.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### **Response to Arguments**

Applicants argue on page 11 that Yu is silent as to the retention rate of the wood preservative of the wood product. However, as discussed above, Creffield et al. teach that 2.5-20 g/m<sup>3</sup> bifenthrin is required to protect timber against *Coptotermes acinaciformis* and *Mastotermes darwiniensis*. Thus, it would have been obvious to apply 2.5- 20 grams bifenthrin per cubic meter in the wood products of Yu.

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al. in view of Creffield et al.; Wimmer et al. in view of Creffield et al.; Shires et al. in view of Wimmer et al.; and Yu in view of Creffield et al.; as discussed above, and further in view of Heitmanek (US 4,894,262).

**Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

The teachings of Kodama et al., Wimmer et al., Shires et al., Yu, and Creffield et al. are discussed above and incorporated herein by reference.

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Kodama et al., Wimmer et al., Shires et al., and Yu do not teach spraying the timber with bifenthrin at a sawmill with a linear sprayer after stress grading and a second spray with a transverse sprayer after a docker saw operation. However, it is commonly known in the art that the use of stress-graded timber is for structural use, it is a critical safety element of construction and the use of strength-graded timber is required by Building Regulations. Also, Heitmanek teaches treating lumber by spraying at the sawmill to seal the sides and ends to maintain the moisture content of the wood (col. 1, ln. 10-55).

**Finding of *prima facie* obviousness**

**Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to apply the bifenthrin composition to the timber product of Kodama et al., Wimmer et al., Shires et al., and Yu while the timber product is at the sawmill and has been stress graded and freshly cut by a docker saw in order to seal/protect the sides and the ends, as reasonably taught by Heitmanek. Also, one of ordinary skill in the art would want to apply the bifenthrin preservative after cutting with a docker as

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opposed to prior to cutting with the docker saw in order to prevent exposing unprotected portions of the timber.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

### ***Response to Arguments***

Applicant's arguments with respect to the rejections over Kodama et al., Wimmer et al., Shires et al., Yu and Creffield et al. above are relied upon herein. Applicants argue on page 13 that Heitmanek does not overcome the deficiencies of Kodama et al., Wimmer et al., Shires et al., Yu and Creffield et al. Therefore, the examiners responses to arguments, as discussed above, are relied upon herein.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al. in view of Creffield et al.; Wimmer et al. in view of Creffield et al.; Takahide et al. in view of Wimmer et al. and Creffield et al.; Shires et al. in view of Wimmer et al.; Jaetsch et al. in view of Wimmer et al. and Creffield et al.; and Yu in view of Creffield et al.; as discussed above, and further in view of Richardson (Wood Preservation, 1993).

### **Determination of the scope and content of the prior art**

**(MPEP 2141.01)**

The teachings of Kodama et al., Wimmer et al., Takahide et al., Shires et al., Jaetsch et al., Yu and Creffield et al. are discussed above and incorporated herein by reference.

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Kodama et al., Wimmer et al., Takahide et al., Shires et al., Jaetsch et al., Yu and Creffield et al. do not teach treating timber with bifenthrin while the wood is warmer than room temperature, as instantly claimed. However, it is very common to treat wood with preservatives wherein the wood is at elevated temperatures, as evidenced by Richardson (pg. 67, Treatment Temperature).

**Finding of *prima facie* obviousness**

**Rational and Motivation (MPEP 2142-43)**

Therefore, it would have been *prima facie* obvious for one skilled in the art at the time of the invention to treat the timber product of Kodama et al., Wimmer et al., Takahide et al., Shires et al., Jaetsch et al., Yu and Creffield et al. with bifenthrin while the wood was warmer than room temperature, as reasonably taught by Richardson.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

***Response to Arguments***

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Applicant's arguments with respect to the rejections over Kodama et al., Wimmer et al., Takahide et al., Shires et al., Jaetsch et al., Yu and Creffield et al. above are relied upon herein. Applicants argue on page 14 that Richardson does not overcome the deficiencies of Kodama et al., Wimmer et al., Takahide et al., Shires et al., Jaetsch et al., Yu and Creffield et al. Therefore, the examiners responses to arguments, as discussed above, are relied upon herein.

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan W. Schlientz whose telephone number is (571)272-9924. The examiner can normally be reached on 9:00 AM to 5:30 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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NWS

/John Pak/  
Primary Examiner, Art Unit 1616